



Launch Mission Execution Forecast

Mission: Falcon 9 Transporter-2

Issued: 22 June 2021 / 0900L (1300Z)

Valid: 25 June 2021 / 1456 – 1554L (1856 – 1954Z)



Forecast Discussion: The subtropical ridge axis is situated south of Central Florida, creating southwesterly flow that hinders the inland progression of the east coast sea breeze. This creates higher chances for storms developing nearby, as well as driving inland storms east each afternoon and evening. Elsewhere a boundary in the Southeast U.S. will gradually erode as the remnants of Tropical Storm Claudette pull northward. As this boundary erodes, the subtropical ridge axis will begin to move north of the Space Coast. There is uncertainty on the timing of this transition, but most of the models have it north of the Spaceport on Friday. This should mean much less storm coverage as the east coast sea breeze will rapidly move inland and push storms westward. The primary launch weather concerns for a Friday afternoon attempt are the Cumulus Cloud Rule and the Thick Layer Cloud Rule.

On Saturday, models are in agreement the subtropical ridge axis will be north of the Spaceport and the boundary will be further eroded. The primary weather concerns for Saturday are the Cumulus Cloud Rule and the Anvil Cloud Rules.

Launch Day	Probability of Violating Weather Constraints							
	40%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layer Rule						
	Weather Conditions						Additional Risk Criteria	
	Weather/Visibility:	Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	85°F / 72%	Cumulus	Scattered	3,000	10,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'):	120° 15 - 20 mph	Altostratus	Scattered	12,000	15,000	Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	30%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules						
	Weather Conditions						Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	84°F / 73%	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'):	120° 15 - 20 mph	Cirrus	Scattered	25,000	27,000	Solar Activity:	Low
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.								
Next Forecast Will Be Issued		23 June 2021						